

# VCZZ1, VCZZ6 SERIES

## REPLACEMENT CARTRIDGES FOR 2-WAY & 3-WAY VC VALVES

### INSTALLATION INSTRUCTIONS

#### Models:



#### Models:

| Replacement Cartridge |              | Valve to be Serviced |                               |     |
|-----------------------|--------------|----------------------|-------------------------------|-----|
| Model No.             | X-code       | Model No.            | X-code                        | Cv  |
| VCZZ1032/U            | X15091317010 | VCZAS1000            | X13680258010,<br>X13680551010 | 7.0 |
|                       |              | VCZAS1132            | X13680258020,<br>X13680551020 | 6.6 |
|                       |              | VCZAA1132            | X13680506010,<br>X13680553010 | 3.3 |
| VCZZ1132/U            | X15091317010 | VC6930BB1132         | X13611047020                  | 3.3 |
|                       |              | VC6930AR1132         | X13611051010                  | 6.6 |
|                       |              | VC6930AL1132         | X13611049010                  | 4.7 |
| VCZZ1432/U            | X15091317030 | VCZAA1432            | X13680506020,<br>X13680553020 | 2.3 |
| VCZZ1532/U            | X15091317040 | VCZAA1532            | X13680506040,<br>X13680553040 | 0.6 |
| VCZZ1632/U            | X15091317050 | VCZAA1632            | X13680506030,<br>X13680553030 | 1.1 |
| VCZZ1832/U            | X15091317110 | VC6930BB1832         | X13611047010                  | 1.9 |
| VCZZ26032/U           | X15091317060 | VCZMS6000            | X13680259010,<br>X13680552010 | 9.0 |
| VCZZ26132/U           | X15091317080 | VCZNL6132            | X13680509010,<br>X13680556010 | 7.4 |
|                       |              | VCZNE6132            | X13680508010,<br>X13680555010 | 8.3 |
|                       |              | VCZMS6132            | X13680259020,<br>X13680552020 | 7.4 |
|                       |              | VCZMA6132            | X13680507010,<br>X13680554010 | 3.8 |
|                       |              | VC6934NB6132         | X13611060030                  | 3.8 |
|                       |              | VC6934MA6132         | X13680561010                  | 3.8 |
|                       |              | VC6934MK6132         | X13611061010                  | 6.6 |
| VC6934ML6132          | X13680562010 | 6.6                  |                               |     |
| VCZZ26432/U           | X15091317080 | VC6930NB6132         | X13611048020                  | 3.8 |

| Replacement Cartridge |              | Valve to be Serviced |                               |     |
|-----------------------|--------------|----------------------|-------------------------------|-----|
| Model No.             | X-code       | Model No.            | X-code                        | Cv  |
| VCZZ26532/U           | X15091317090 | VC6930MK6132         | X13611050010                  | 6.6 |
|                       |              | VCZMA6432            | X13680507020,<br>X13680554020 | 2.7 |
|                       |              | VCZMA6532            | X13680507040,<br>X13680554040 | 0.7 |
|                       |              | VC6934NB6532         | X13611060010                  | 0.7 |
|                       |              | VC6934MA6532         | X13680559010                  | 0.7 |
| VCZZ26632/U           | X15091317100 | VCZMA6632            | X13680507030,<br>X13680554030 | 1.5 |
|                       |              | VC6930NB6632         | X13611048010                  | 1.5 |
| VCZZ26832/U           | X15091317120 | VC6934NB6832         | X13611060020                  | 2.2 |
|                       |              | VC6934MA6832         | X13680560010                  | 2.2 |

#### Cross-Reference:

| Valve to be Serviced |              |     | Replacement Cartridge |             |
|----------------------|--------------|-----|-----------------------|-------------|
| X-code               | Model No.    | Cv  | X-Code                | Model No.   |
| X13611047010         | VC6930BB1832 | 1.9 | X15091317110          | VCZZ1832/U  |
| X13611047020         | VC6930BB1132 | 3.3 | X15091317020          | VCZZ1132/U  |
| X13611048010         | VC6930NB6632 | 1.5 | X15091317100          | VCZZ26632/U |
| X13611048020         | VC6930NB6132 | 3.8 | X15091317070          | VCZZ26132/U |
| X13611049010         | VC6930AL1132 | 4.7 | X15091317020          | VCZZ1132/U  |
| X13611050010         | VC6930MK6132 | 6.6 | X15091317070          | VCZZ26132/U |
| X13611051010         | VC6930AR1132 | 6.6 | X15091317020          | VCZZ1132/U  |
| X13611060010         | VC6934NB6832 | 2.2 | X15091317090          | VCZZ26532/U |
| X13611060020         | VC6934NB6832 | 0.7 | X15091317120          | VCZZ26832/U |
| X13611060030         | VC6934NB6132 | 3.8 | X15091317070          | VCZZ26132/U |
| X13611061010         | VC6934MK6132 | 6.6 | X15091317070          | VCZZ26132/U |
| X13680258010         | VCZAS1000    | 7.0 | X15091317010          | VCZZ1032/U  |
| X13680258020         | VCZAS1132    | 6.6 | X15091317020          | VCZZ1132/U  |
| X13680259010         | VCZMS6000    | 9.0 | X15091317060          | VCZZ26032/U |
| X13680259020         | VCZMS6132    | 7.4 | X15091317070          | VCZZ26132/U |
| X13680506010         | VCZAA1132    | 3.3 | X15091317020          | VCZZ1132/U  |
| X13680506010         | VCZAA1132    | 3.3 | X15091317020          | VCZZ1132/U  |
| X13680506020         | VCZAA1432    | 2.3 | X15091317030          | VCZZ1432/U  |
| X13680506030         | VCZAA1632    | 1.1 | X15091317050          | VCZZ1632/U  |
| X13680506040         | VCZAA1532    | 0.6 | X15091317040          | VCZZ1532/U  |
| X13680507010         | VCZMA6132    | 3.8 | X15091317070          | VCZZ26132/U |
| X13680507010         | VCZMA6132    | 3.8 | X15091317070          | VCZZ26132/U |
| X13680507020         | VCZMA6432    | 2.7 | X15091317080          | VCZZ26432/U |
| X13680507030         | VCZMA6632    | 1.5 | X15091317100          | VCZZ26632/U |
| X13680507040         | VCZMA6532    | 0.7 | X15091317090          | VCZZ26532/U |



**Cross-Reference:**

| Valve to be Serviced |              |     | Replacement Cartridge |            |
|----------------------|--------------|-----|-----------------------|------------|
| X-code               | Model No.    | Cv  | X-Code                | Model No.  |
| X13680508010         | VCZNE6132    | 8.3 | X15091317070          | VCZZ6132/U |
| X13680509010         | VCZNL6132    | 7.4 | X15091317070          | VCZZ6132/U |
| X13680551010         | VCZAS1000    | 7.0 | X15091317010          | VCZZ1032/U |
| X13680551020         | VCZAS1132    | 6.6 | X15091317020          | VCZZ1132/U |
| X13680552010         | VCZMS6000    | 9.0 | X15091317060          | VCZZ6032/U |
| X13680552020         | VCZMS6132    | 7.4 | X15091317070          | VCZZ6132/U |
| X13680553010         | VCZAA1132    | 3.3 | X15091317020          | VCZZ1132/U |
| X13680553010         | VCZAA1132    | 3.3 | X15091317020          | VCZZ1132/U |
| X13680553020         | VCZAA1432    | 2.3 | X15091317030          | VCZZ1432/U |
| X13680553030         | VCZAA1632    | 1.1 | X15091317050          | VCZZ1632/U |
| X13680553040         | VCZAA1532    | 0.6 | X15091317040          | VCZZ1532/U |
| X13680554010         | VCZMA6132    | 3.8 | X15091317070          | VCZZ6132/U |
| X13680554010         | VCZMA6132    | 3.8 | X15091317070          | VCZZ6132/U |
| X13680554020         | VCZMA6432    | 2.7 | X15091317080          | VCZZ6432/U |
| X13680554030         | VCZMA6632    | 1.5 | X15091317100          | VCZZ6632/U |
| X13680554040         | VCZMA6532    | 0.7 | X15091317090          | VCZZ6532/U |
| X13680555010         | VCZNE6132    | 8.3 | X15091317070          | VCZZ6132/U |
| X13680556010         | VCZNL6132    | 7.4 | X15091317070          | VCZZ6132/U |
| X13680559010         | VC6934MA6532 | 0.7 | X15091317090          | VCZZ6532/U |
| X13680560010         | VC6934MA6832 | 2.2 | X15091317120          | VCZZ6832/U |
| X13680561010         | VC6934MA6132 | 3.8 | X15091317070          | VCZZ6132/U |
| X13680562010         | VC6934ML6132 | 6.6 | X15091317070          | VCZZ6132/U |

# TO REPLACE CARTRIDGE

**IMPORTANT**

*Installation of a replacement cartridge requires draining the hydronic system or isolating the valve from the system.*

With the VC actuator mounted on the VC valve body, put the manual lever in the open (down) position to allow system flushing. On 3-way valves, put the lever in the closed (up) position to flush the B-port piping. This may be done with or without electrical hook-up.

Alternatively, reusable flush caps, Honeywell part # 272866, may be purchased separately for use in initial flushing of dirty hydronic systems.

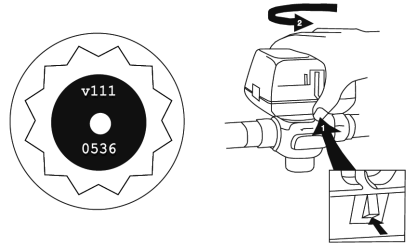


Fig. 1.

Fig. 2.

1. Check replacement part number for match with the old cartridge assembly for suitability with your valve. (See Figure 1 for location of cartridge type identity.) Cartridges with silver, 14 lbf. springs are marked "VCxx". Cartridges with red, 20 lbf. springs are marked "V1xx" and directly replace 14lbf. models.

NOTE: VCZZ1 series cartridges are used for 2-way VC valves. VCZZ6 series cartridges are used for 3-way VC valves.

2. Disconnect power supply before servicing to avoid electrical shock or equipment damage. On 24V systems, never jumper the valve coil terminals, even temporarily. This may damage the thermostat.
3. Depending on the installation, it may be necessary to disconnect leadwires to valve actuator, or depress tab on Molex™ connector and remove. Where appropriate, label wires for rewiring.
4. Remove valve actuator by pressing up on the latch mechanism located directly below the white manual open lever with thumb (See Figure 2). Simultaneously press the actuator down towards the valve body with moderate hand force and turn the actuator counter-clockwise by 1/8 turn (45°). Lift actuator off the valve body.

**IMPORTANT**

*Note whether the existing cartridge is flush with the top of the valve body, or if the top flange is exposed. The new cartridge will fit either body style, but must be installed the same way.*

## INSTALLATION

**! CAUTION**

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Always conduct a thorough checkout when installation is completed.

**IMPORTANT**

*For trouble-free operation of the product, good installation practice must include initial system flushing, chemical water treatment, and the use of a 50 micron (or finer) system side stream filters.*

*Do not use boiler additives, solder flux and wetted materials which are petroleum based or contain mineral oil, hydrocarbons, or ethylene glycol acetate. Compounds which can be used, with minimum 50% water dilution, are diethylene glycol, ethylene glycol, and propylene glycol (antifreeze solutions).*

VC-series valves are serviced by replacing the control cartridge. This rebuilds the valve and restores it to factory conditions.

Two-way cartridges fit all two-way bodies. Three-way cartridges fit all three-way bodies. The Cv rating of a valve can be changed by replacing the cartridge, allowing for unique combinations.

5. To replace a cartridge, isolate flow to the valve using installed shutoff valves or other service equipment designed for this purpose. Remove old cartridge with 40007029-002 wrench supplied with the replacement unit (See Figure 3). It may be necessary to use pliers or other tools to remove the old cartridge due to calcium or dirt buildup in the valve body.

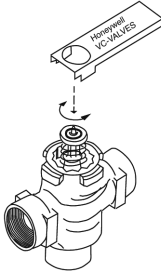


Fig. 3.

6. Clean the valve surfaces marked \* (all valves) and \*\* (3-way valves only) in Figure 4 to ensure the new cartridge O-rings seal at these points. Use care to avoid damage to these surfaces.

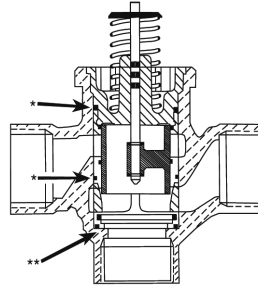


Fig. 4.

7. Remove the pre-lubricated cartridge assembly from its plastic bag or clamshell. Thread it by hand into the valve body and tighten it down with the enclosed wrench until it bottoms out. DO NOT OVER TIGHTEN: maximum torque is 40 in-lb. (4.5 Nm).
8. Replace valve actuator by reversing the process in (4).

NOTE: The actuator head automatically latches to the valve.

9. Reconnect leadwires or Molex™ connector if necessary.
10. Refill hydronic system or restore system flow by opening isolating valves. Restore system pressure slowly to the valve to allow any trapped air to escape.
11. Restore power, and checkout operation of cartridge in valve, making sure of no internal seat leakage or external body leakage.

